

FIGURE 1

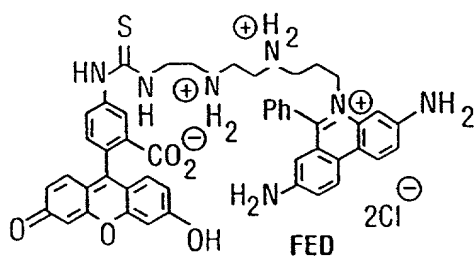
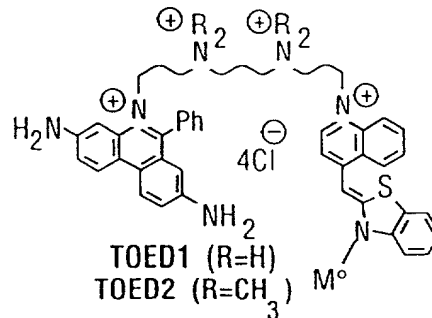
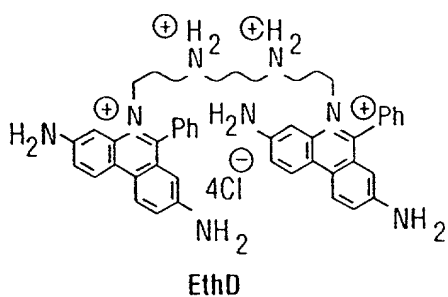
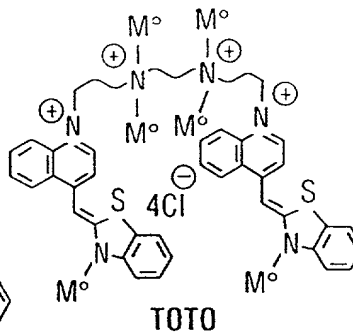
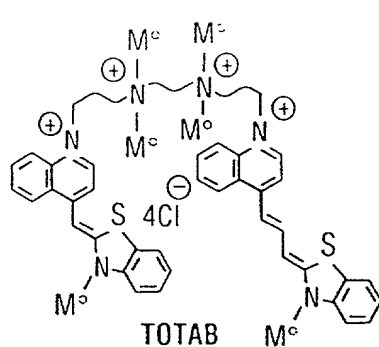
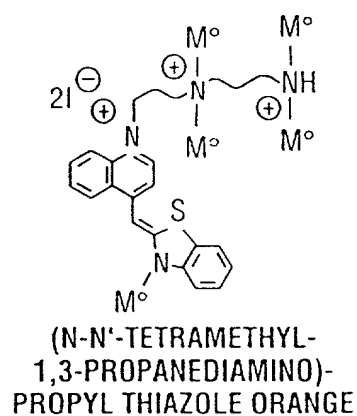
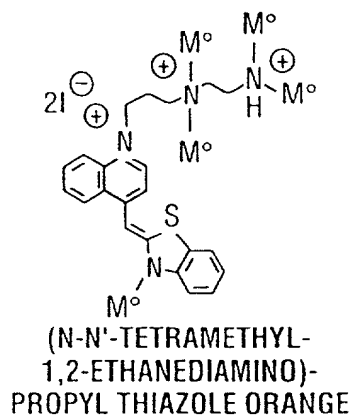
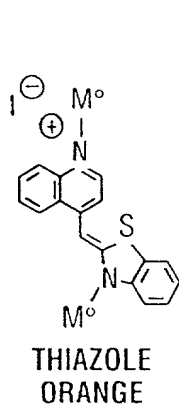
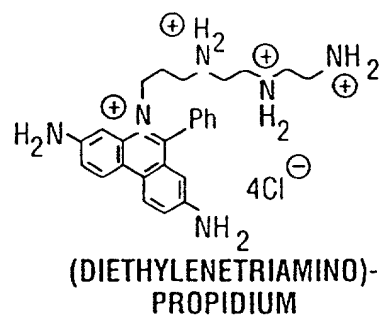
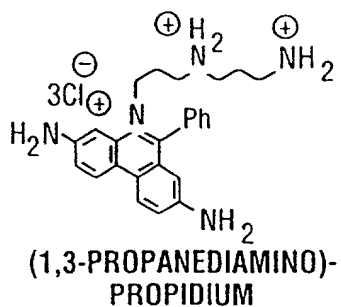
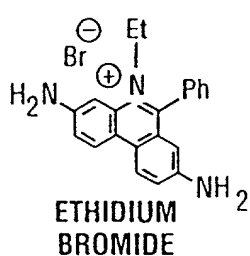


FIGURE 2

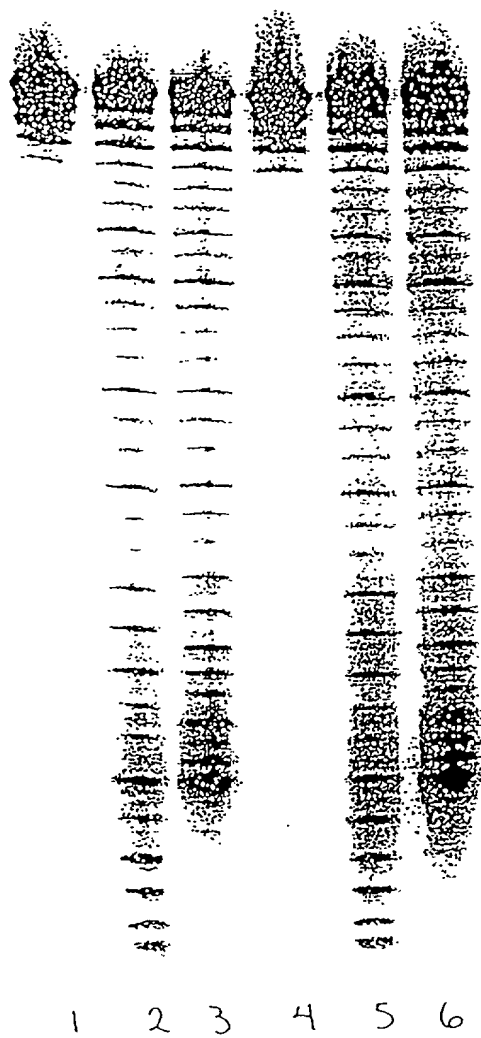


FIGURE 3

70 (C10 aminoT's)

74 (C6 amino T's)

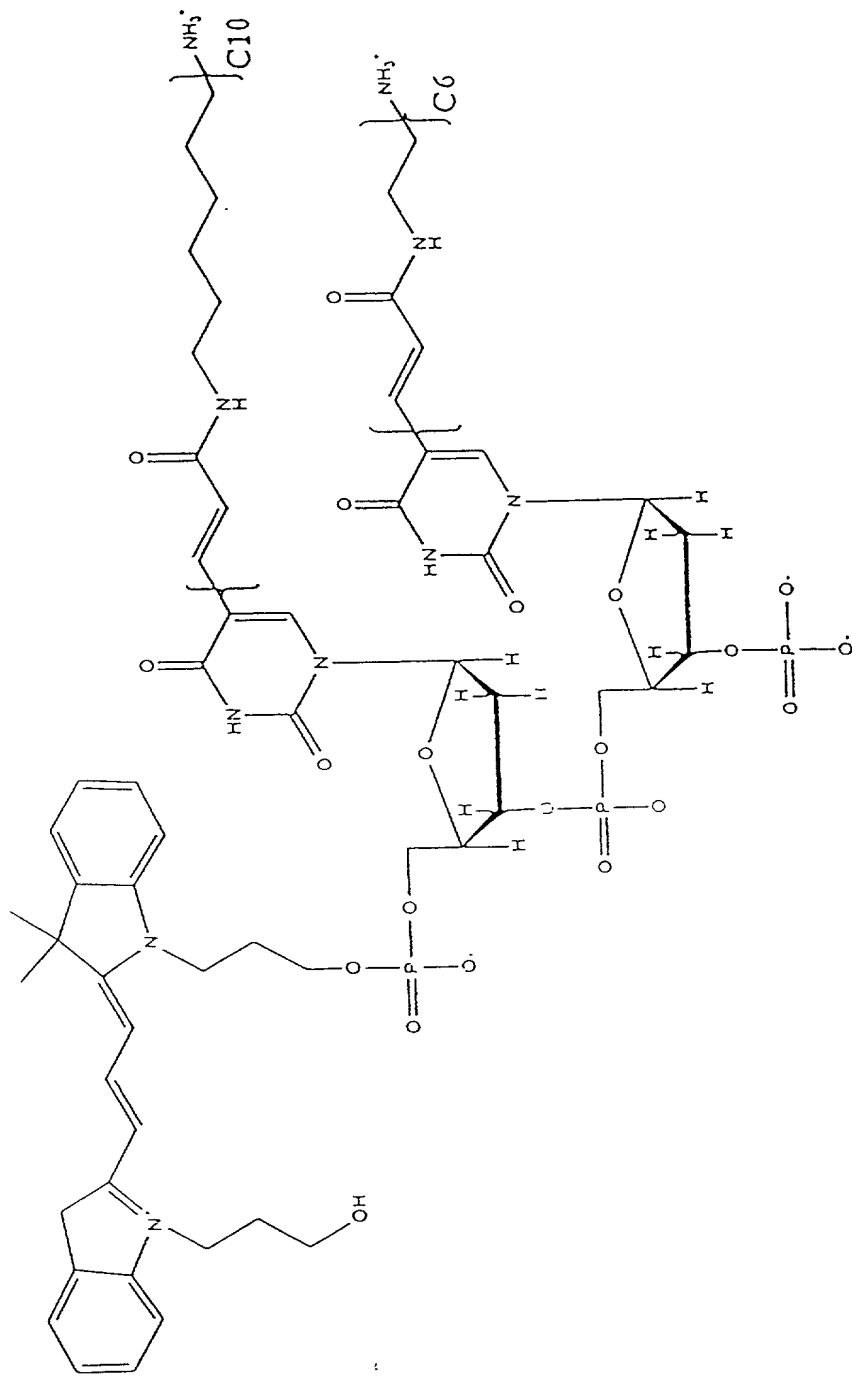
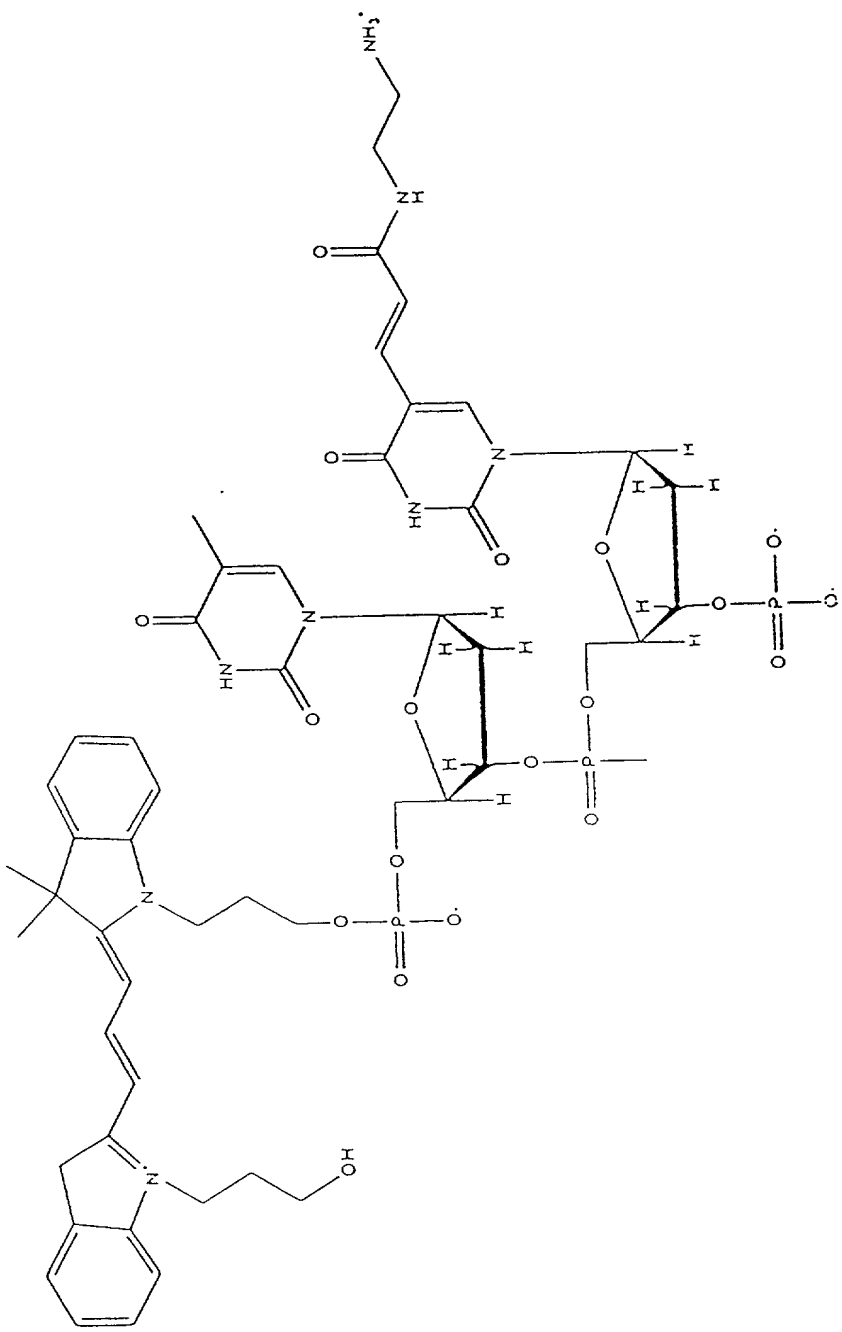


FIGURE 4a



75

9h/h

94/5

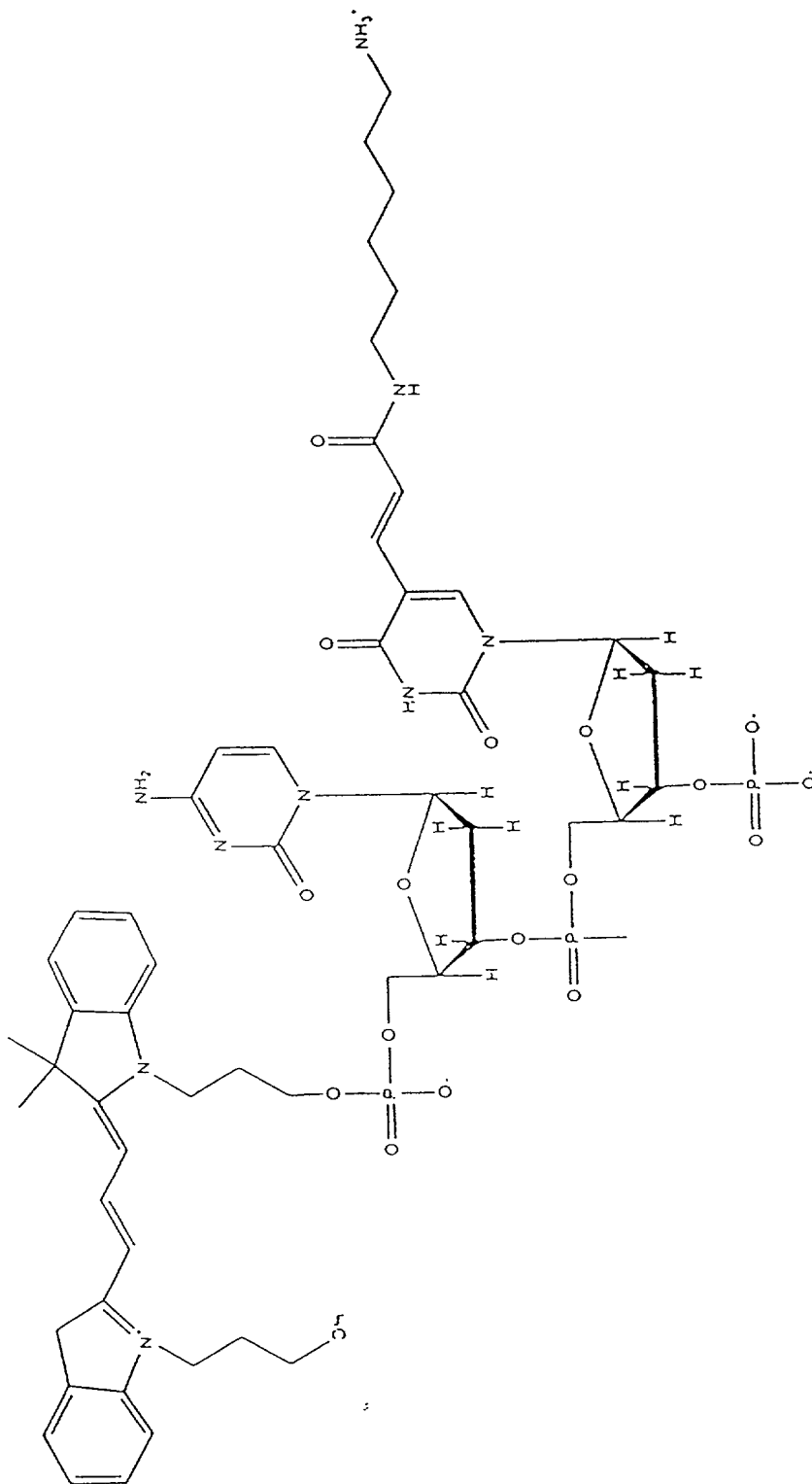


FIGURE 4b

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FIGURE 5

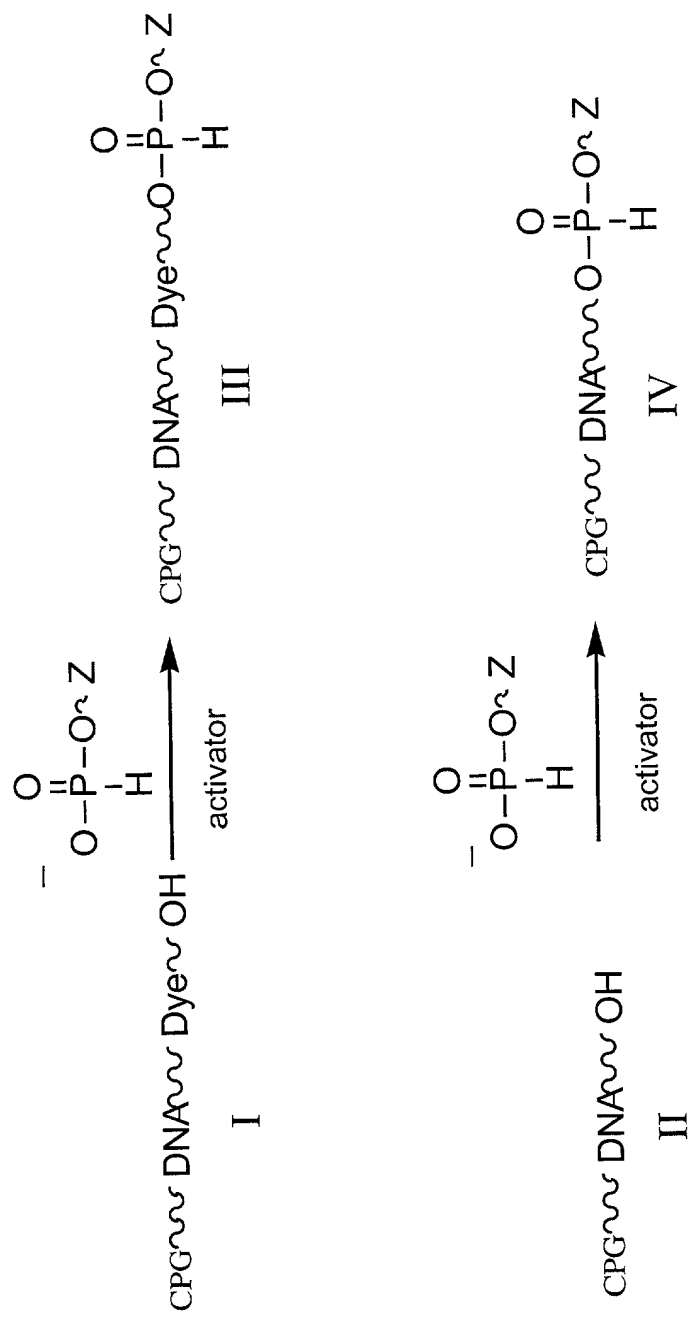
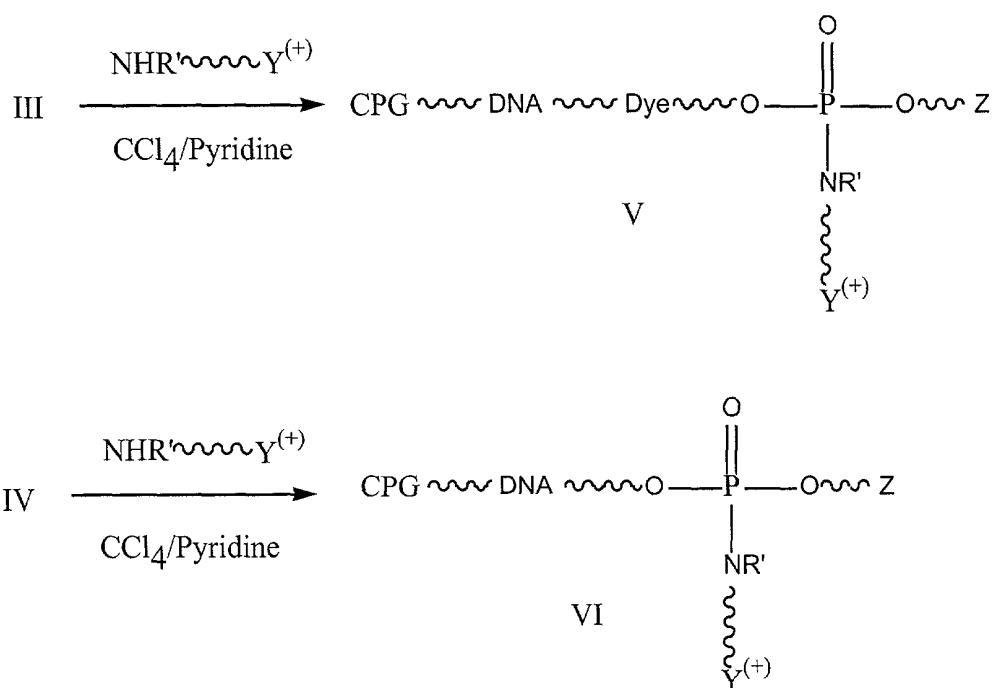


FIGURE 6



$\text{Y}^{(+)}$ = organic group capable to introduce positive charge

FIGURE 7

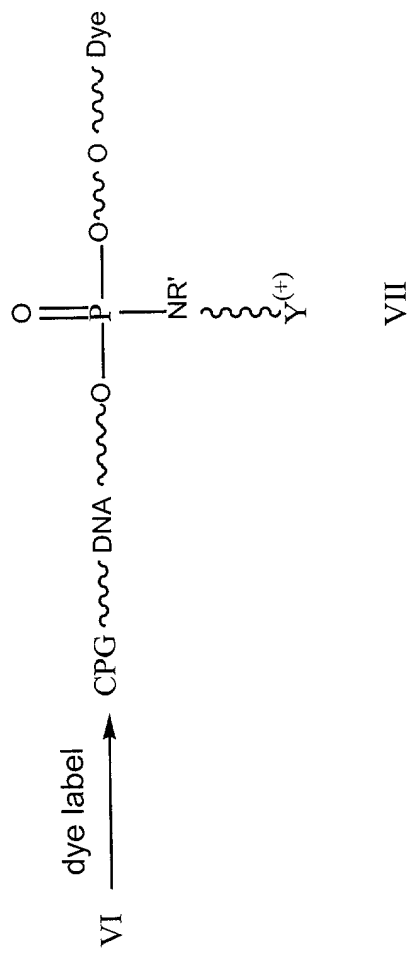
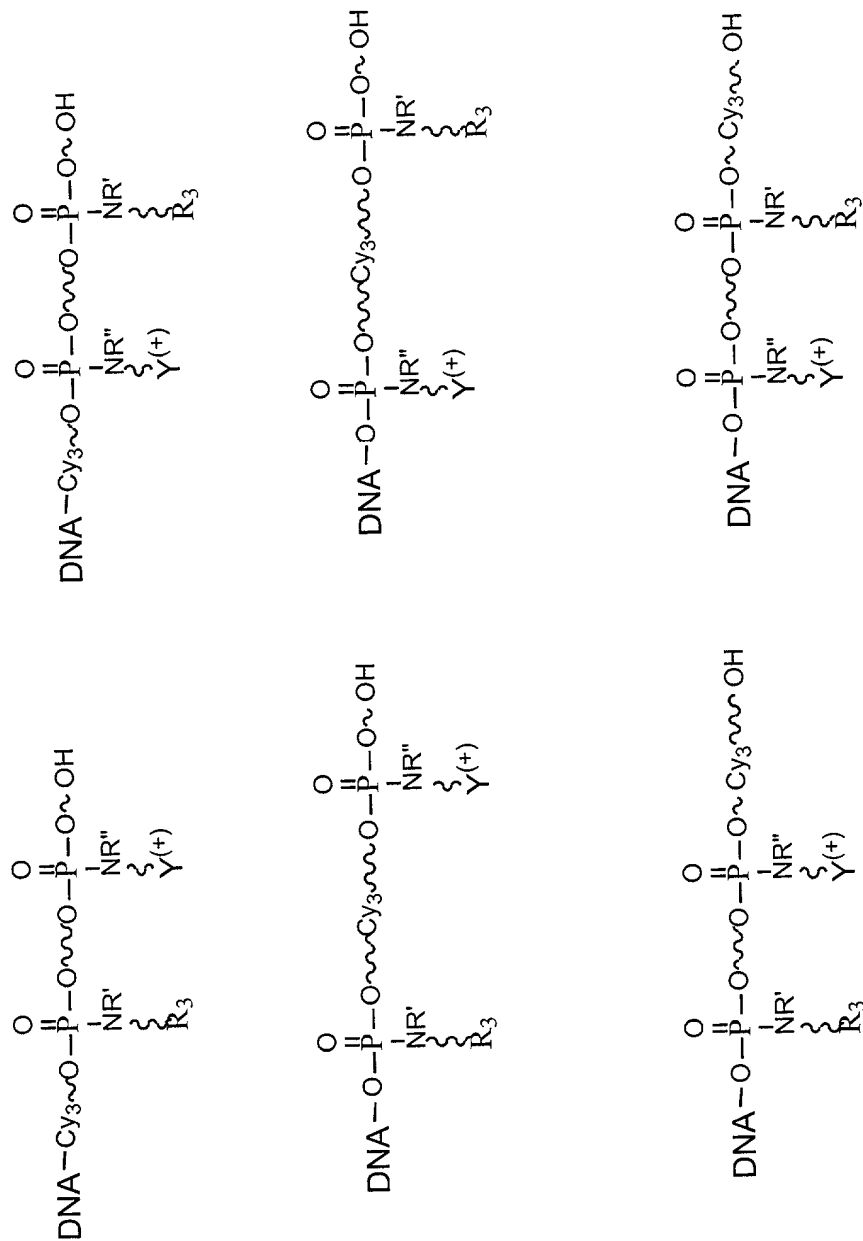


FIGURE 8



R', R'', R3 = H, alkyl, aryl

FIGURE 9

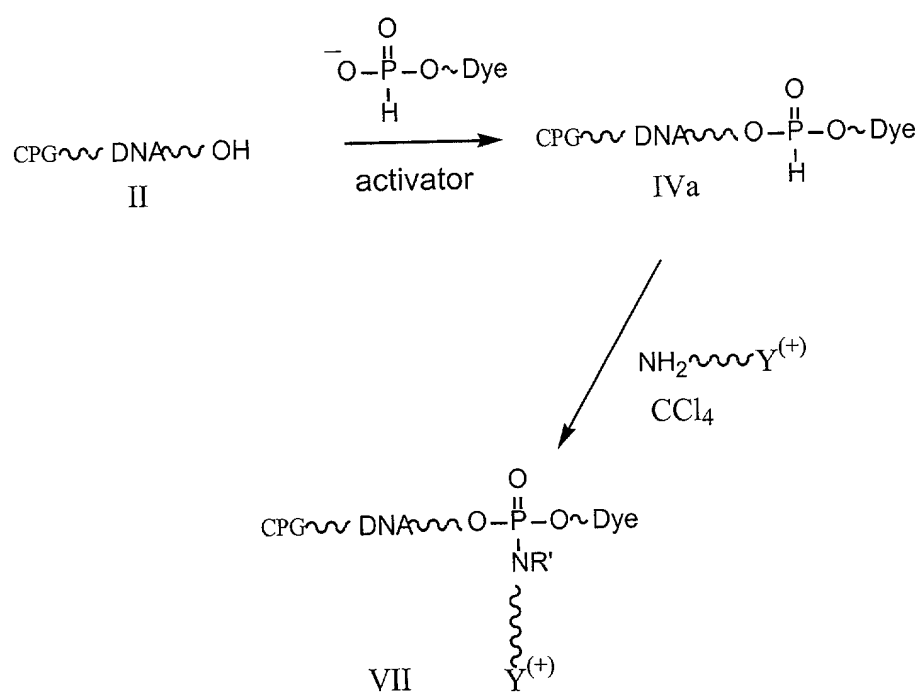


FIGURE 10

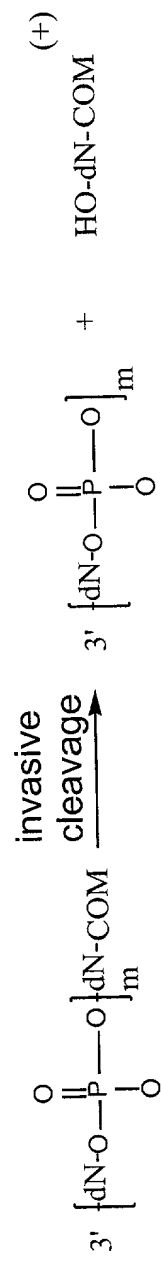
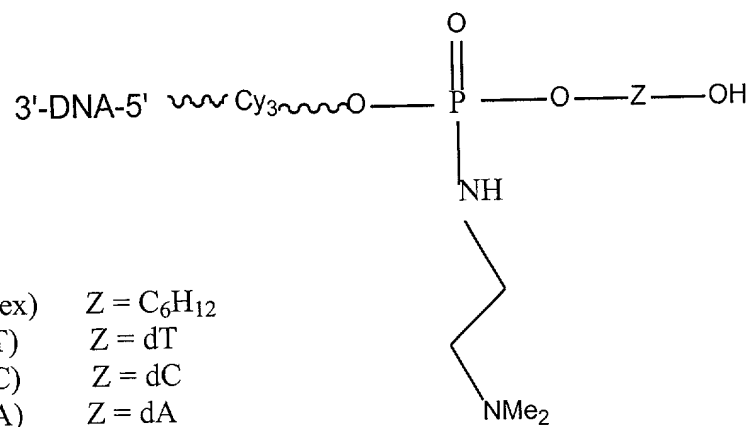
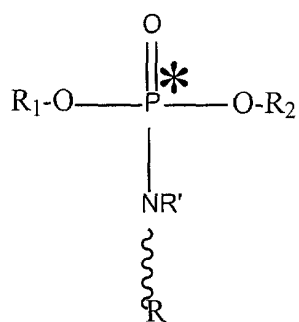


FIGURE 11



V-(Hex)	Z = C ₆ H ₁₂
V-(dT)	Z = dT
V-(dC)	Z = dC
V-(dA)	Z = dA
V-(dG)	Z = dG

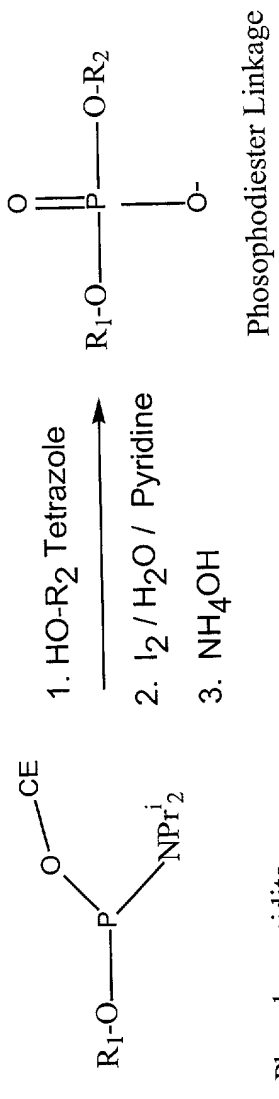
FIGURE 12



chiral phosphoramidate phosphorus atom

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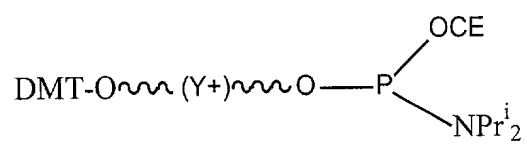
FIGURE 13



CE = Cyanoethyl

FIGURE 14

A.



B.

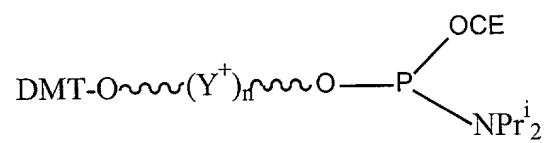


FIGURE 15

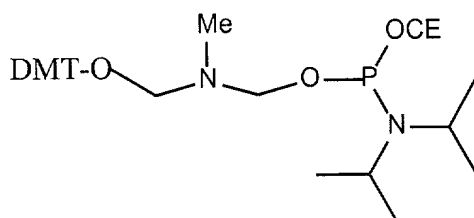
A. $\begin{matrix} (0) & (+1) \\ 3'\text{-DNA} - (\text{DP}) - (\text{PCP}) \end{matrix}$

B. $\begin{matrix} (0) & (0) & (+1) \\ 3'\text{-DNA} - (\text{DP}) - (\text{NP})_n - (\text{PCP}) \end{matrix}$

C. $\begin{matrix} (0) & (-1) & (+1) \\ 3'\text{-DNA} - (\text{DP}) - (\text{PBB})_n - (\text{PCP})_{(n+1)} \end{matrix}$

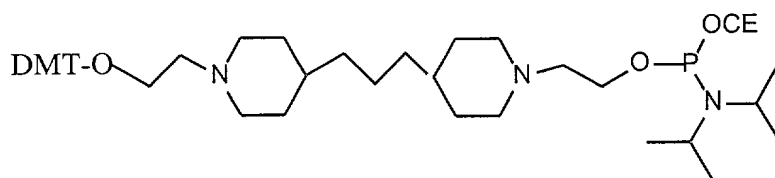
D. $\begin{matrix} (0) & (-1) & (+1) & (0) \\ 3'\text{-DNA} - (\text{DP}) - (\text{PBB})_n - (\text{PCP})_{(n+1)} - (\text{NP})_m \end{matrix}$

FIGURE 16



Neutral Phosphoramidite

Net Charge : 0



Positively Charged Phosphoramidite

Net Charge : +1

FIGURE 17

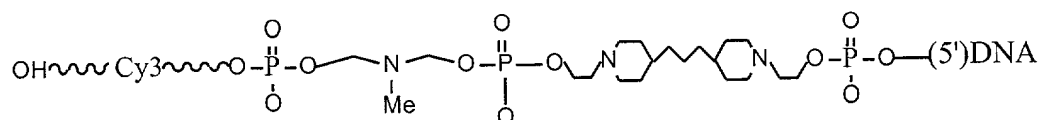
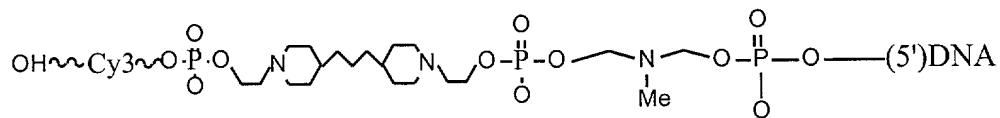
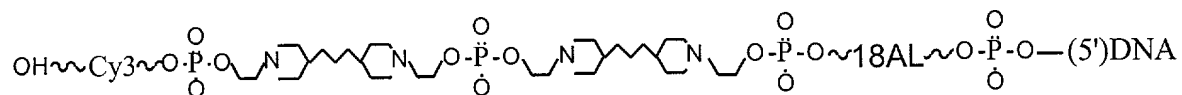
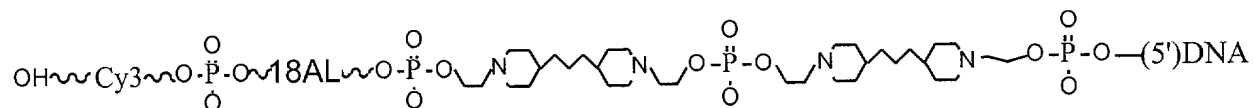
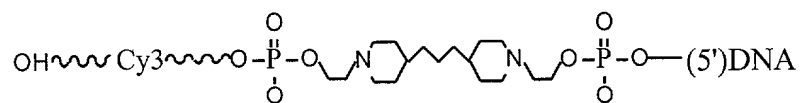
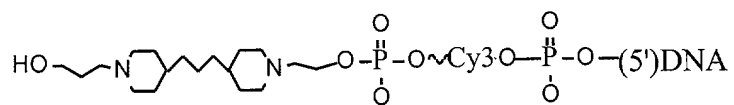


FIGURE 18

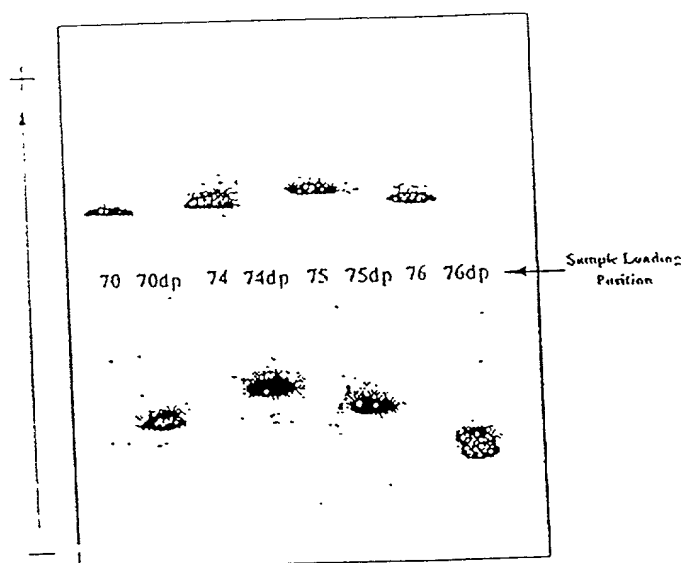
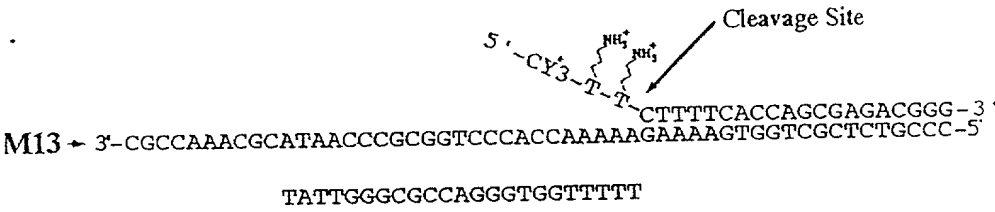


FIGURE 19

A.



B.

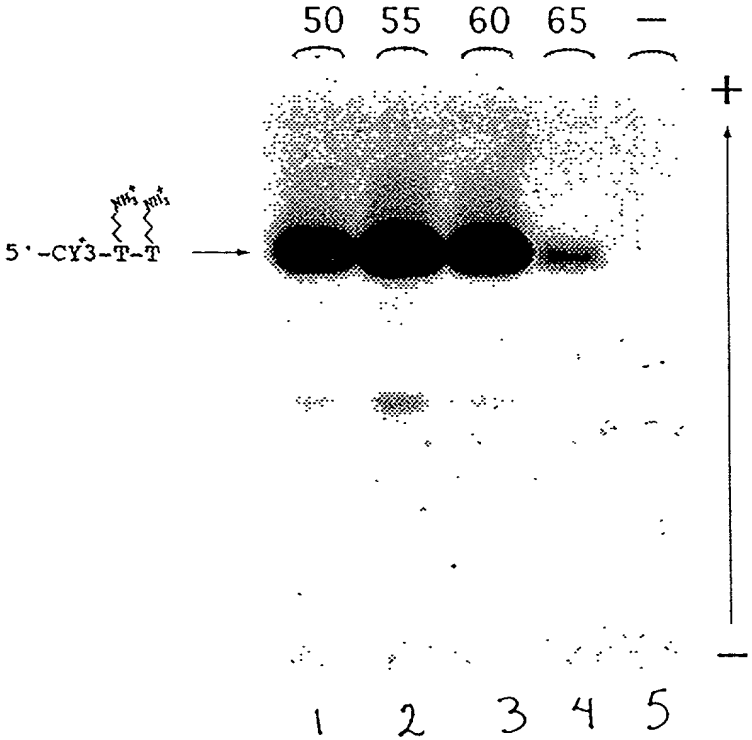


FIGURE 20

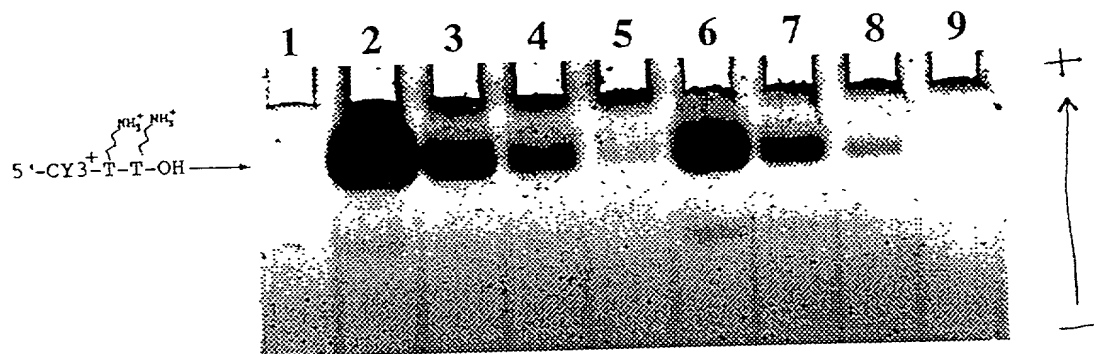


FIGURE 21

A

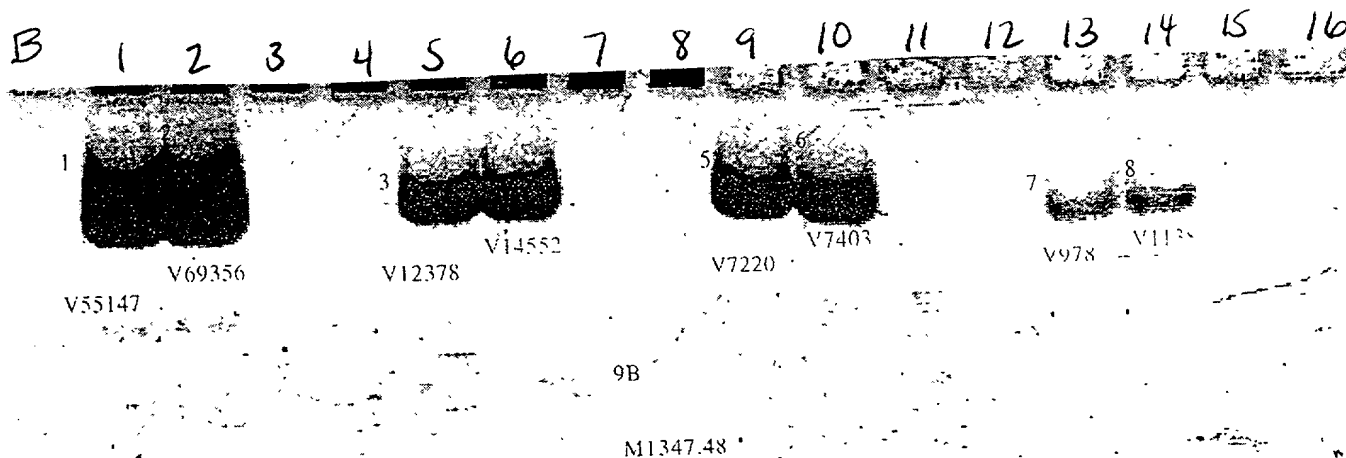
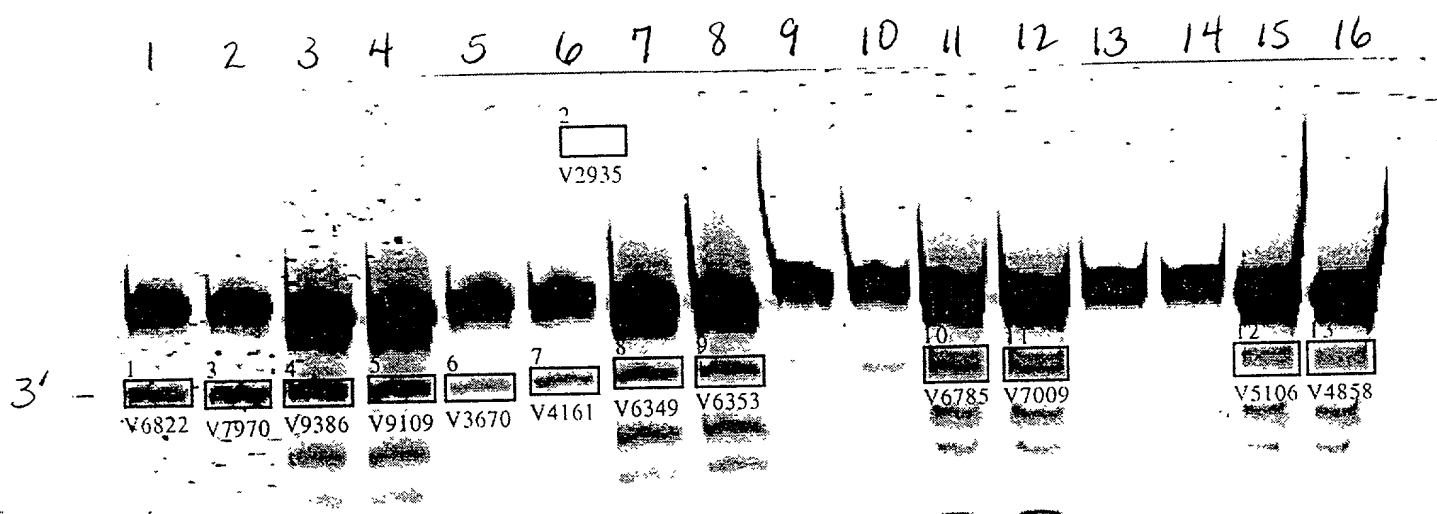


FIGURE 22

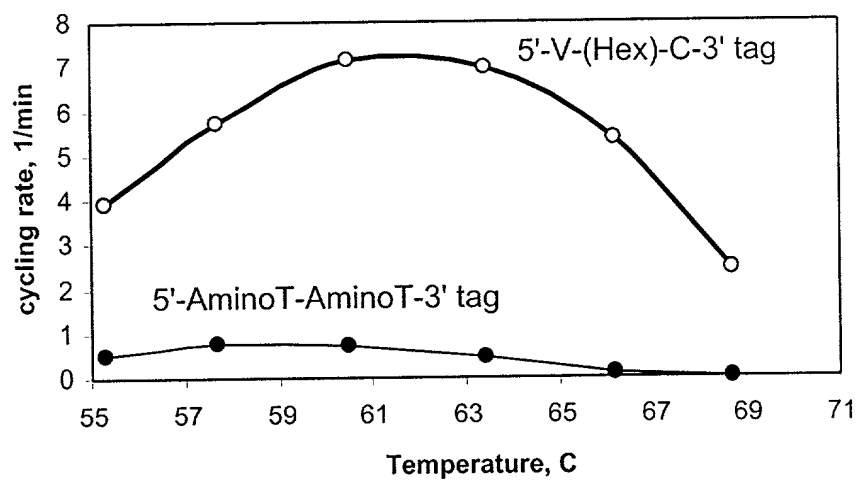
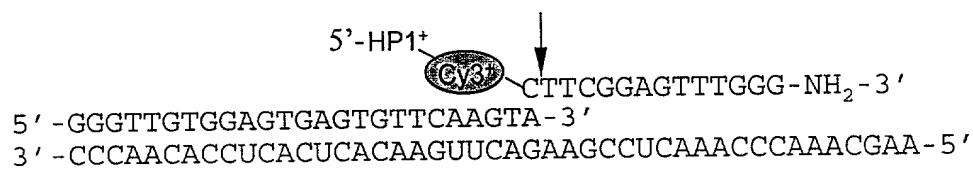
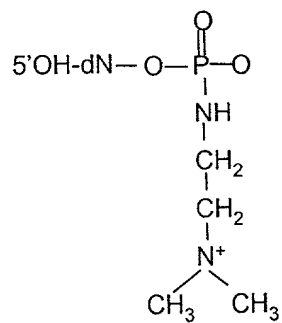


FIGURE 23

A.

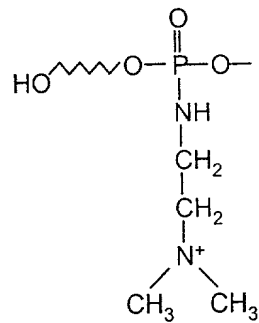


B.



V(dN)

804-41



V(HEX)

FIGURE 24A

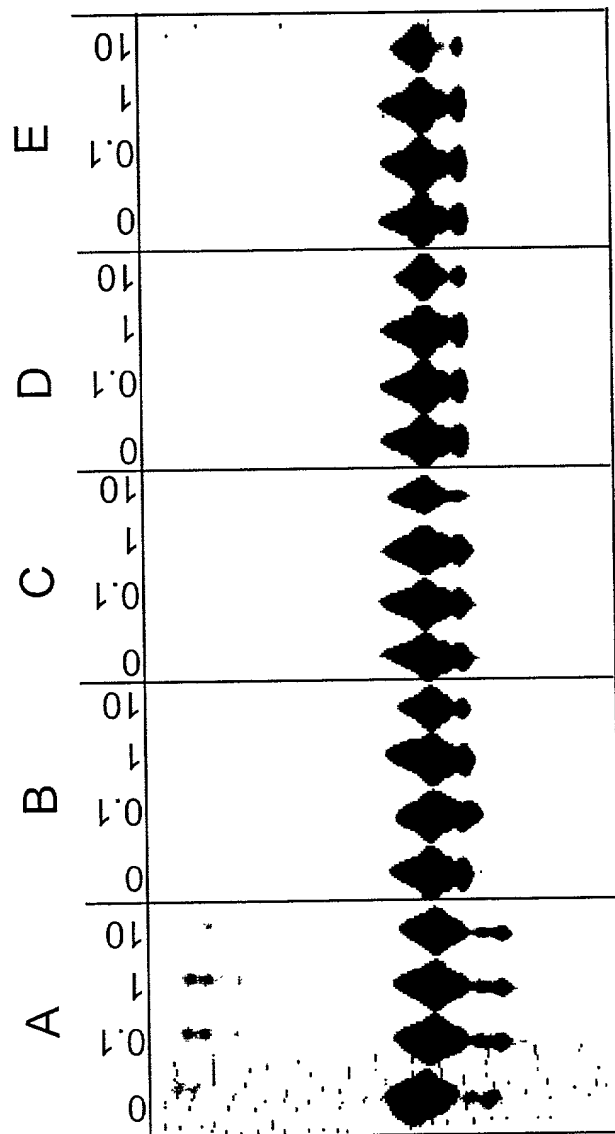


FIGURE 24B

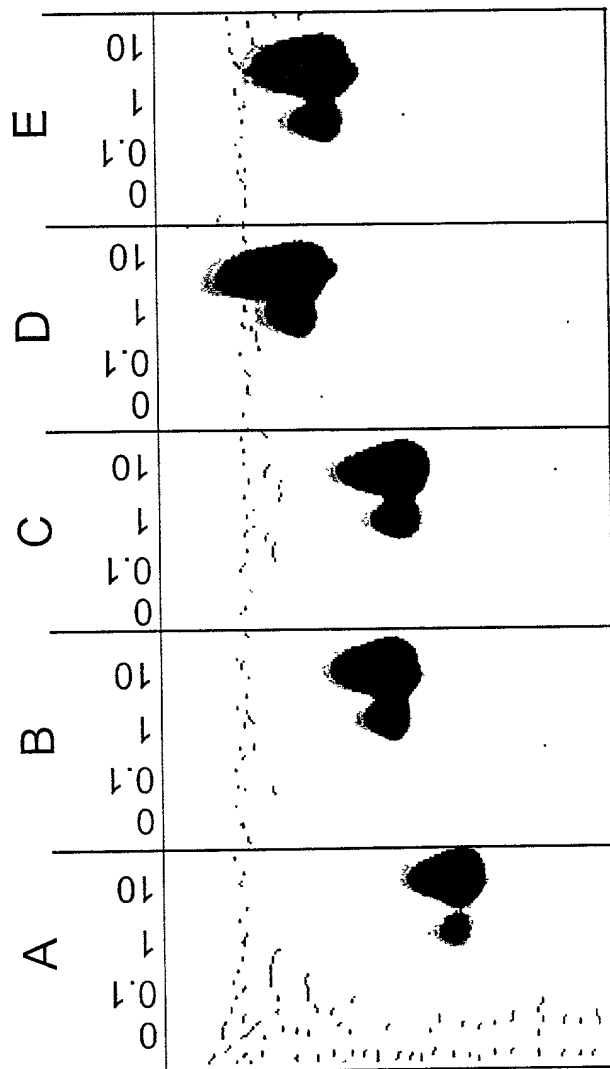


FIGURE 25

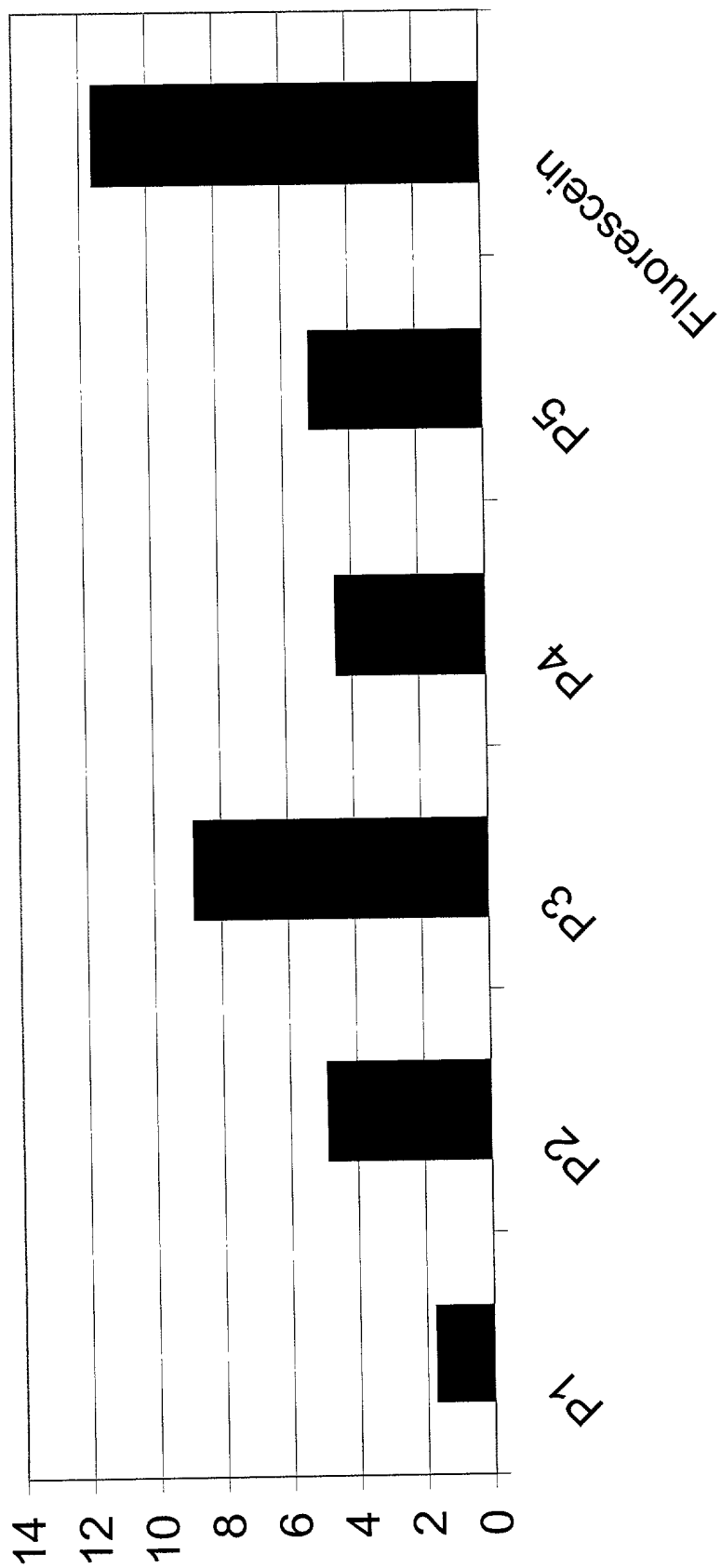


FIGURE 26A

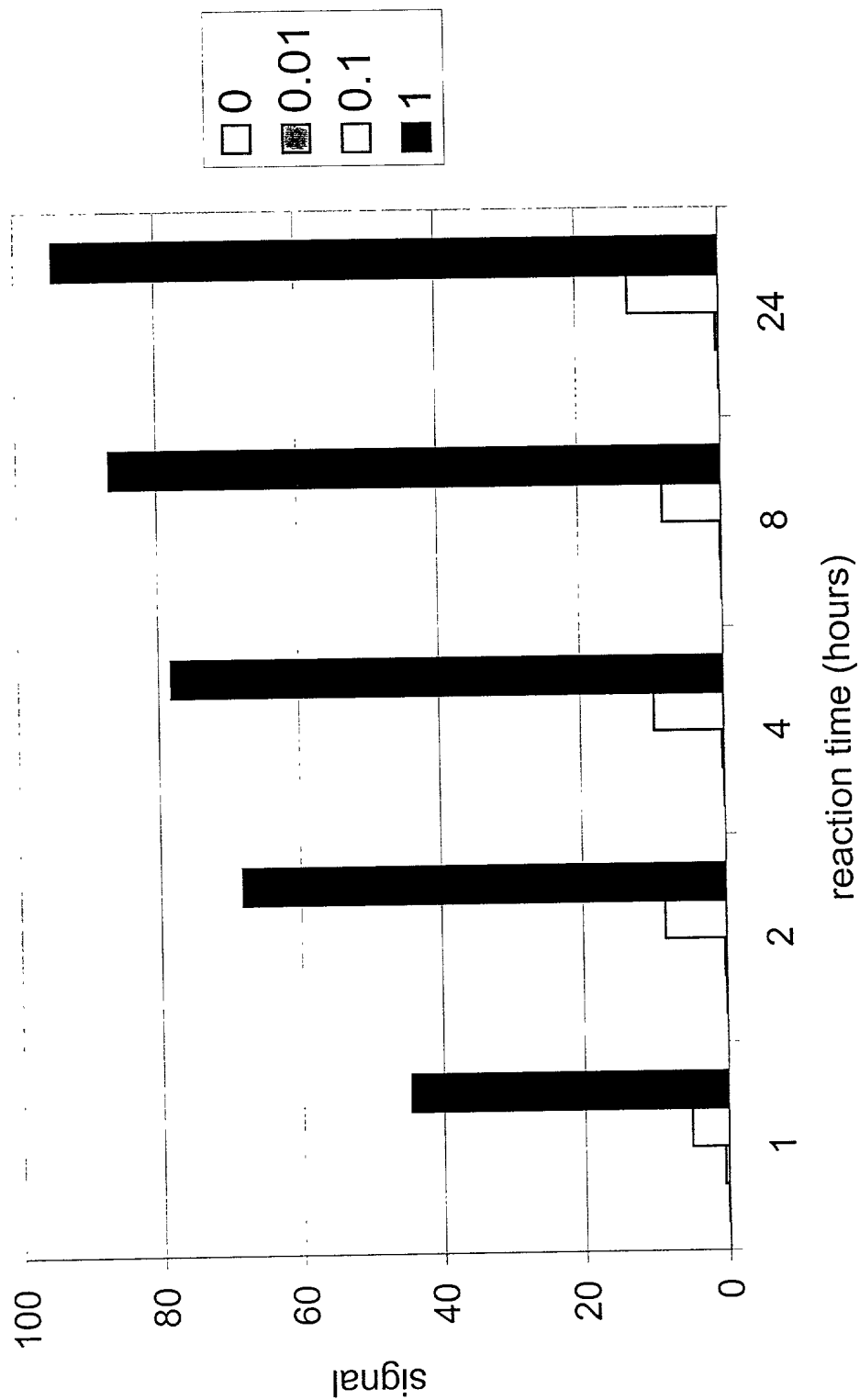


FIGURE 26B

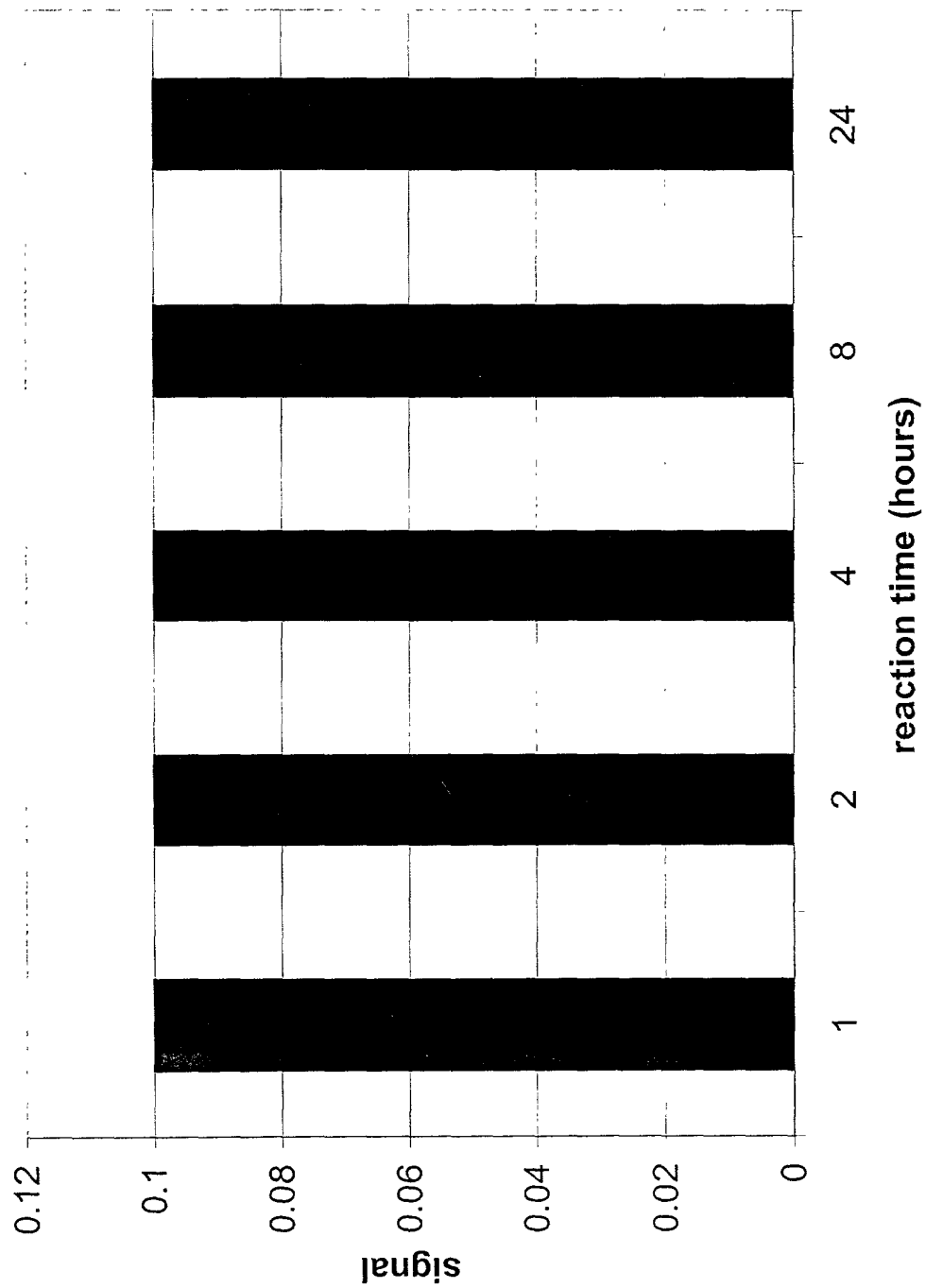


FIGURE 27

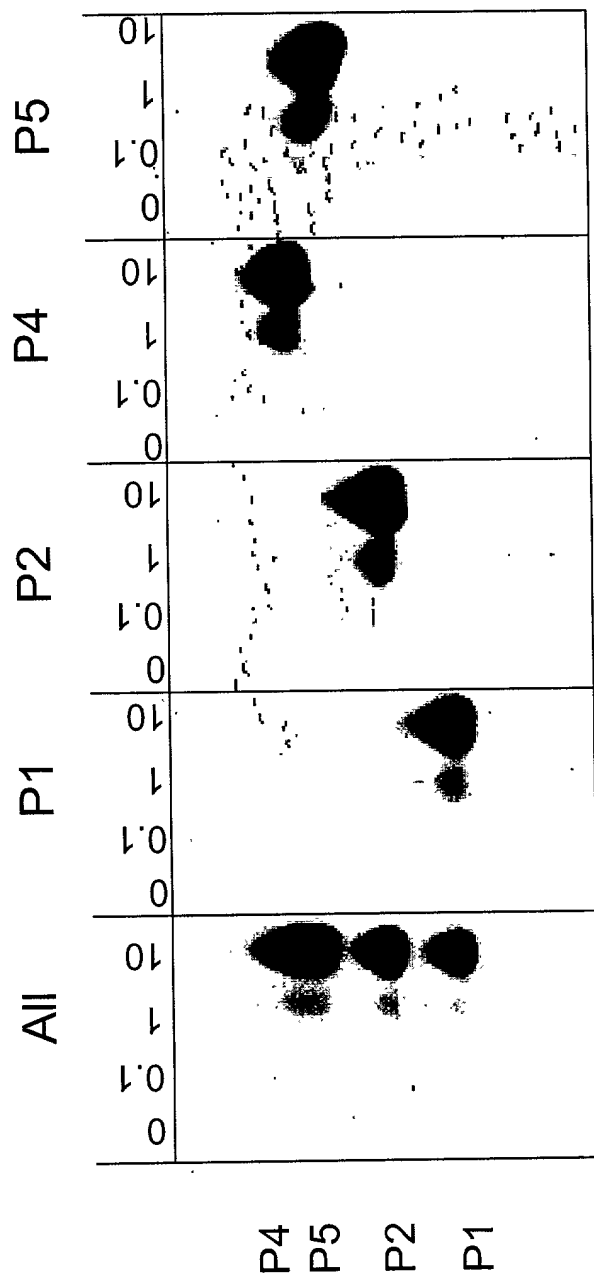
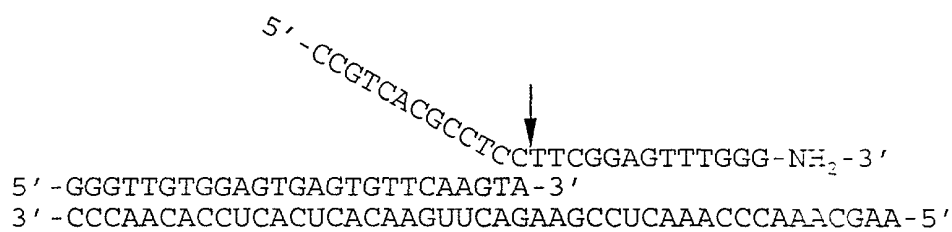
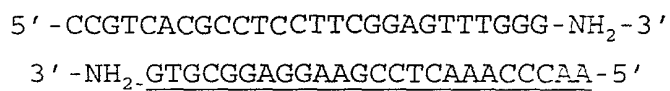


FIGURE 28A

Primary reaction



Human MCP-1 mRNA



Secondary reaction

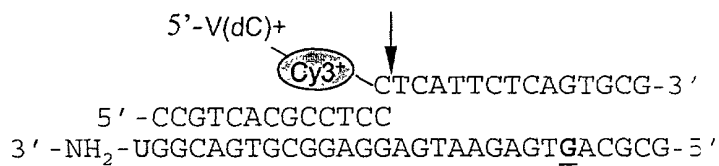
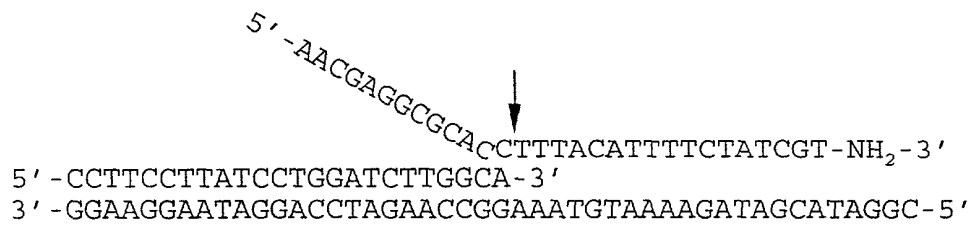
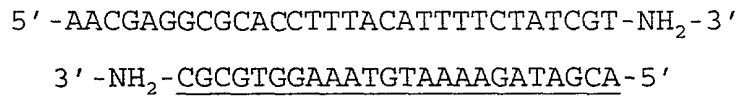


FIGURE 28B

Primary reaction



Human Ubiquitin mRNA



Secondary reaction

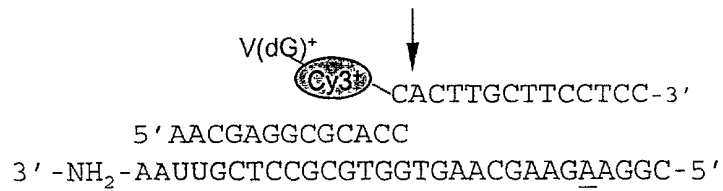


FIGURE 29

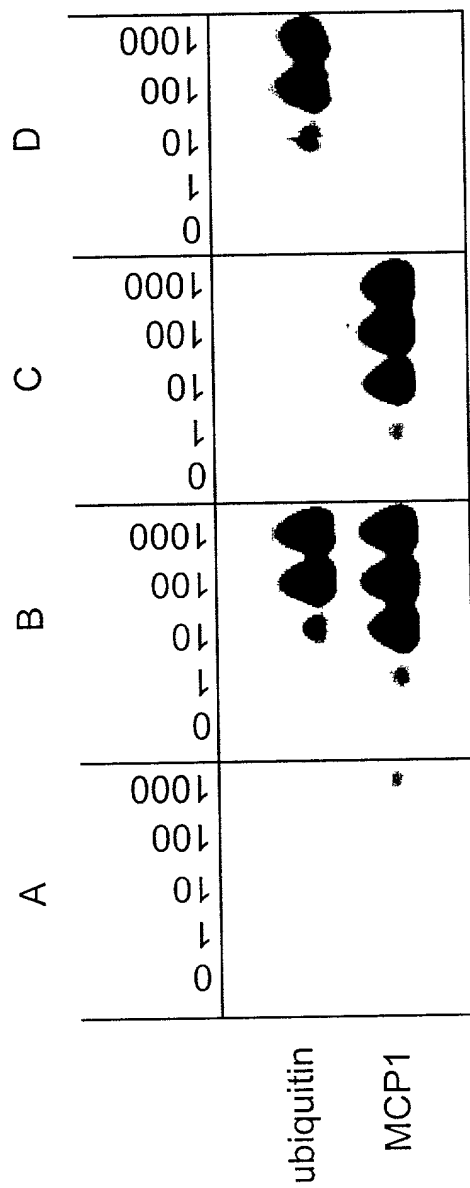


FIGURE 30A

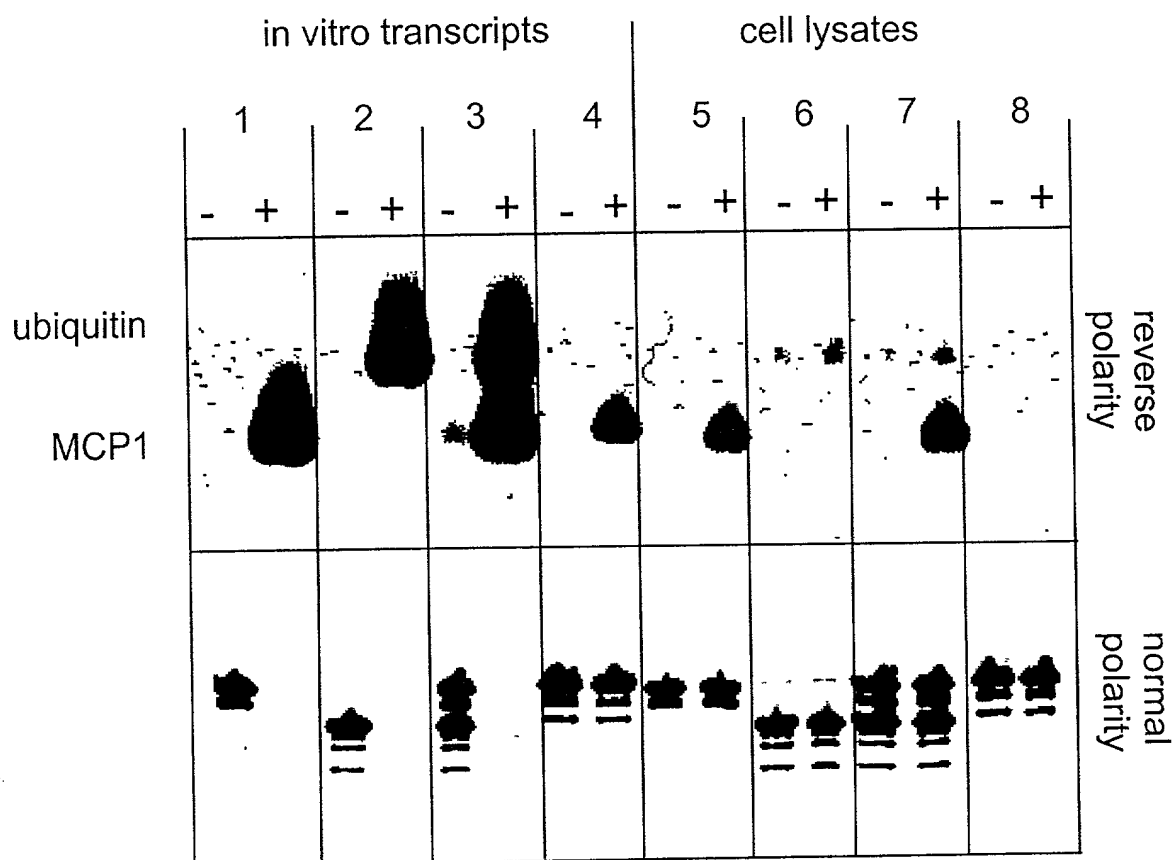
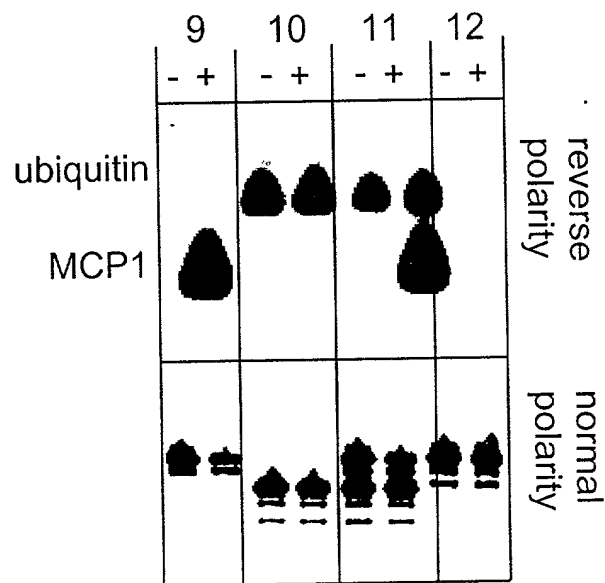


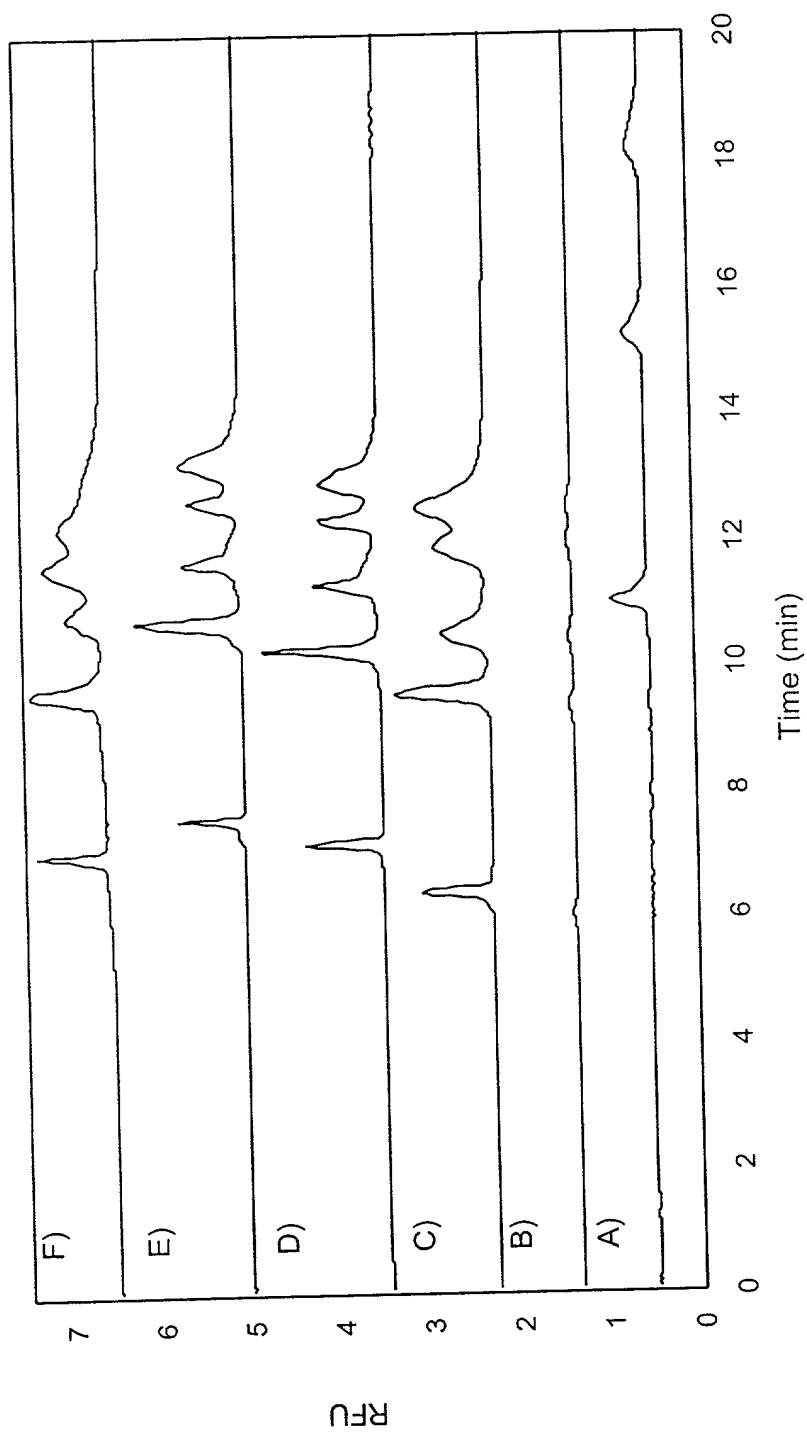
FIGURE 30B



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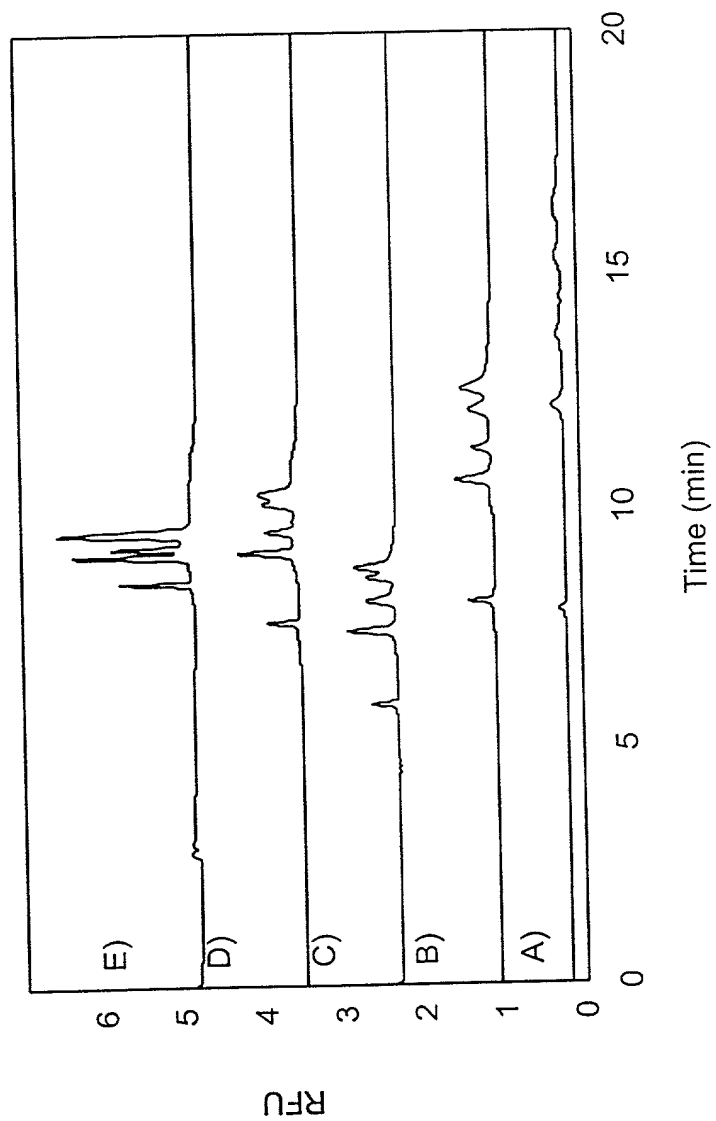
Figure 31 shows the chromatograms of the samples A, B, C, D, E, and F. The x-axis represents Time (min) from 0 to 20, and the y-axis represents RFU from 0 to 7. The chromatograms show peaks at various retention times, with sample F showing the most complex profile.

FIGURE 31



9h/εε

FIGURE 32



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FIGURE 33

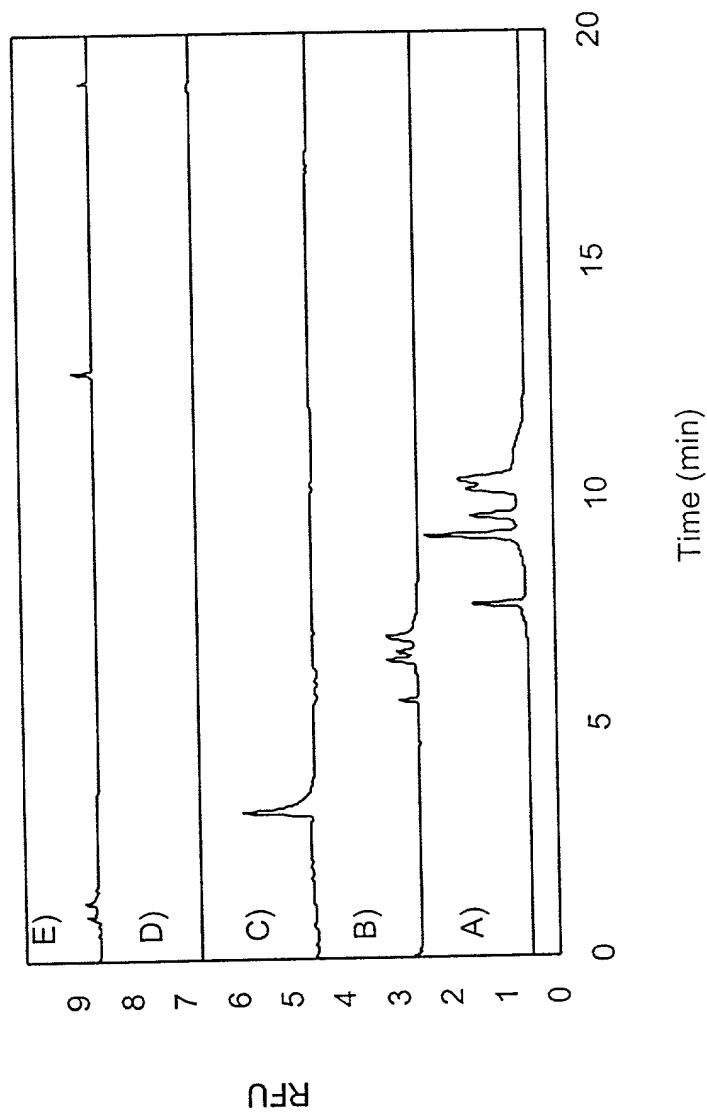
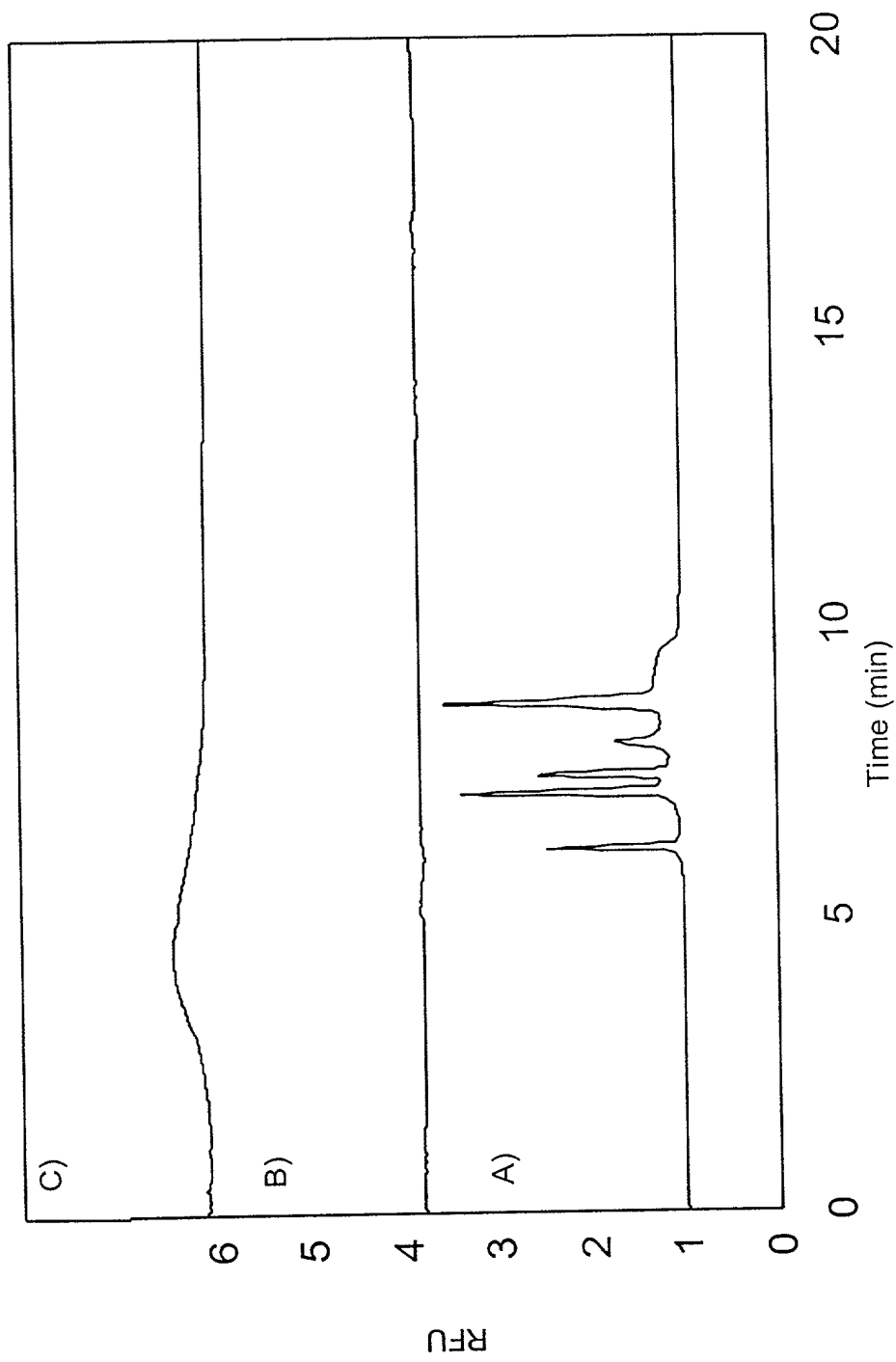


FIGURE 34



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FIGURE 35

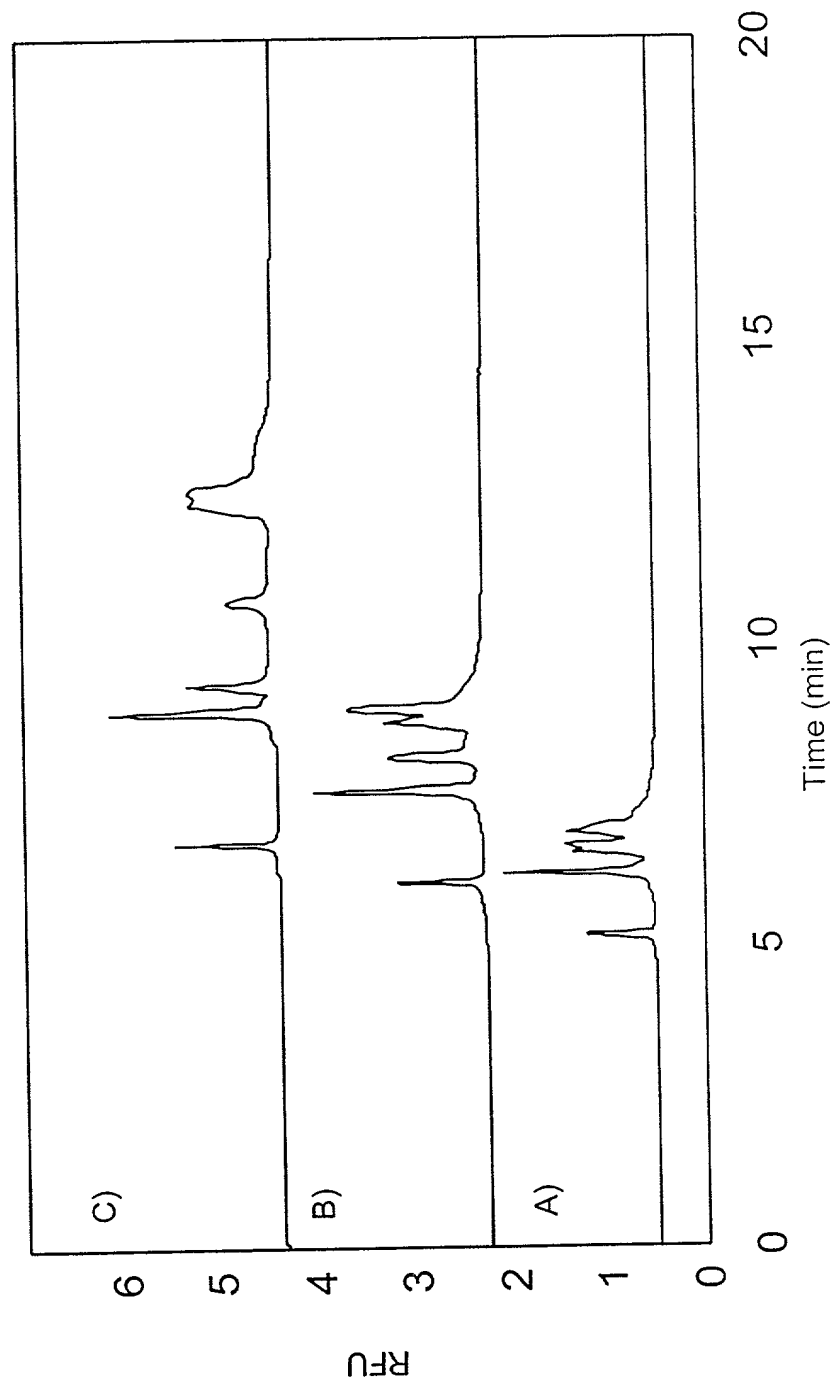


FIGURE 36

